

Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE **COMPANY/UNDERTAKING**

1.1 Product identifier

Product name	:	COSA PUR 84
UFI	:	NWS5-PQJ9-880P-S60X
Product code	:	115585E
Use of the Substance/Mixture	:	Additive
Substance type:	:	Mixture
		For professional users only.
Product dilution information	:	1.0 %

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	:	Industrial automatic application
Recommended restrictions on use	:	Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company	 Ecolab Deutschland GmbH Ecolab-Allee 1 40789 Monheim am Rhein, Germany +49 (0)2173 599 0 OfficeService.DEDUS@ecolab.com 				
1.4 Emergency telephone nur	nber				
Emergency telephone number	: +32-(0)3-575-5555 Trans-european, German speaking, 24/7 or +49 32 212249407 German speaking, 24/7				
Poison Information Centre telephone number	: +49 (0)551 38318854				
Date of Compilation/Revision : 17.05.2023 Version : 4.1					
Section: 2. HAZARDS IDENTIFICATION					
2.1 Classification of the subs	2.1 Classification of the substance or mixture				

Classification (REGULATION (EC) No 1272/2008)

Product AS SOLD

Skin irritation, Category 2

Serious eye damage, Category 1	H318
Specific target organ toxicity - repeated exposure, Category	H373
2	11070

Product AT USE DILUTION

Not a hazardous substance or mixture.

2.2 Label elements

No 1272/2008)	
Danger	
H315 H318 H373	Causes skin irritation. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.
Prevention: P280 Response: P305 + P351 + P3 P310	Wear protective gloves/ eye protection/ face protection. 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
	H315 H318 H373 Prevention: P280 Response: P305 + P351 + P3

Hazardous components which must be listed on the label: Tetrasodium $\ensuremath{\mathsf{EDTA}}$

Product AT USE DILUTION

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

2.3 Other hazards

Product AS SOLD None known. Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Product AS SOLD Hazardous components

Chemical Name	CAS-No. EC-No. REACH No.	Classification REGULATION (EC) No 1272/2008	Concentration : [%]
Tetrasodium EDTA	64-02-8	Acute toxicity Category 4; H302	>= 25 - < 30
	200-573-9	Serious eye damage Category 1; H318	
	01-2119486762-27	Specific target organ toxicity - repeated	

		exposure Category 2; H373	
Soap	22919-56-8 245-327-1 REACH EXEMPTED	Skin irritation Category 2; H315 Eye irritation Category 2; H319 Specific target organ toxicity - single exposure Category 3; H335	>= 5 - < 10
isononanoic acid, compd. with 2,2',2"- nitrilotris[ethanol] (1:1)	67801-51-8 267-170-8	Eye irritation Category 2; H319	>= 2.5 - < 5
Alcohols, C12-18, ethers with polyethylene glycol mono-Bu ether	146340-16-1 POLYMER	Skin irritation Category 2; H315 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 3; H412	>= 1 - < 2.5
Substances with a workp	lace exposure limit :		
triethanolamine	102-71-6 203-049-8 01-2119486482-31	Not Classified;	>= 2.5 - < 5

Product AT USE DILUTION

Remarks

: No hazardous ingredients For the full text of the H-Statements mentioned in this Section, see Section 16. Section: 4. FIRST AID MEASURES

4.1 Description of first aid measures

Product AS SOLD	
In seas of such southest	

In case of eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
In case of skin contact	:	Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Get medical attention if irritation develops and persists.
If swallowed	:	Rinse mouth. Get medical attention if symptoms occur.
If inhaled	:	Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

Product AT USE DILUTION In case of eye contact	:	Rinse with plenty of water.
In case of skin contact	:	Rinse with plenty of water.
If swallowed	:	Rinse mouth. Get medical attention if symptoms occur.
If inhaled	:	Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

Treatment

: Treat symptomatically.

Section: 5. FIREFIGHTING MEASURES

Product AS SOLD

5.1 Extinguishing media

	Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
	Unsuitable extinguishing media	:	None known.
5.2	Special hazards arising from	the	e substance or mixture
	Specific hazards during firefighting	:	Not flammable or combustible.
	Hazardous combustion products	:	Depending on combustion properties, decomposition products may include following materials: Carbon oxides nitrogen oxides (NOx) Oxides of phosphorus metal oxides
E 2	Advice for firefighters		

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Use personal protective equipment.
Further information	:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.
: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.
: Refer to protective measures listed in sections 7 and 8.
 If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

6.2 Environmental precautions

Product AS SOLD

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Environmental precautions	: Do not allow contact with soil, surface or ground water.
Product AT USE DILUTION Environmental precautions	: No special environmental precautions required.
6.3 Methods and materials for co	ontainment and cleaning up
Product AS SOLD Methods for cleaning up	: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.
Product AT USE DILUTION Methods for cleaning up	: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

6.4 Reference to other sections

See Section 1 for emergency contact information. For personal protection see section 8. See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Product AS SOLD Advice on safe handling	: Avoid contact with skin and eyes. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not breathe spray, vapour. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.
Product AT USE DILUTION Advice on safe handling	: Wash hands after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). For personal protection see section 8.
Hygiene measures	: Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

R	reas and containers		Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers. 5 °C to 35 °C
R	roduct AT USE DILUTION equirements for storage reas and containers	•	Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.
7.3 Sp	pecific end uses		
	roduct AS SOLD pecific use(s)	:	Industrial automatic application

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Product AS SOLD

Occupational Exposure Limits

Components	CAS-No.		Value type (Form	Control parameters	Basis
			of exposure)		
triethanolamine	102-71-6		AGW (Inhalable fraction)	1 mg/m3	TRGS 900
Further information		Y When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

DNEL

DNEL triethanolamine	: End Use: Workers
	Exposure routes: Inhalation
	Potential health effects: Long-term systemic effects
	Value: 1 mg/m3
	End Use: Workers
	Exposure routes: Inhalation
	Potential health effects: Long-term local effects
	Value: 1 mg/m3
	End Use: Workers
	Exposure routes: Dermal
	Potential health effects: Long-term systemic effects Value: 7.5 mg/cm2
	value. 7.5 mg/cmz
	End Use: Consumers
	Exposure routes: Inhalation
	Potential health effects: Long-term systemic effects
	Value: 1.25 mg/m3
	End Use: Consumers
	Exposure routes: Inhalation
	Potential health effects: Long-term local effects
	Value: 1.25 mg/m3
	End Use: Consumers
	Exposure routes: Dermal
	Potential health effects: Long-term systemic effects
	Value: 3.1 mg/cm2
	Value. J.T my/ullz

		End Use: Consumers Exposure routes: Ingestion Potential health effects: Long-term systemic effects Value: 13 ppm
sodium hydroxide	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m3

PNEC

PNEC		
triethanolamine	: Fresh water Value: 0.32 mg/l	
	Marine water Value: 0.032 mg/l	
	Intermittent use/release Value: 5.12 mg/l	
	Fresh water sediment Value: 1.7 mg/kg	
	Marine sediment Value: 1.7 mg/kg	
	Sewage treatment plant Value: 10 mg/l	
	Soil Value: 0.151 mg/kg	

8.2 Exposure controls

Product AS SOLD Appropriate engineering controls					
Engineering measures	: Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.				
Individual protection measures					
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.				

Eye/face protection (EN 166)		Safety goggles Face-shield
Hand protection (EN 374)		Recommended preventive skin protection Gloves Nitrile rubber butyl-rubber Breakthrough time: 1 – 4 hours Minimum thickness for butyl-rubber 0.3 mm for nitrile rubber 0. mm or equivalent (please refer to the gloves manufacturer/distributor for advise). Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
Skin and body protection (EN 14605)	:	No special protective equipment required.
Respiratory protection (EN 143, 14387)		None required if airborne concentrations are maintained below exposure limit listed in Exposure Limit Information. Use certifier respiratory protection equipment meeting EU requirements(89/656/EEC, (EU) 2016/425), or equivalent, whe respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, metho or procedures of work organization.
Product AT USE DILUTION Appropriate engineering cor	ntro	ls
Engineering measures		Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Individual protection measur	res	
Hygiene measures	:	Wash hands before breaks and immediately after handling the product.
Eye/face protection (EN 166)	:	No special protective equipment required.
Hand protection (EN 374)	:	No special protective equipment required.
Skin and body protection (EN 14605)	:	No special protective equipment required.
Respiratory protection (EN 143, 14387)		None required if airborne concentrations are maintained below exposure limit listed in Exposure Limit Information. Use certifie respiratory protection equipment meeting EU requirements(89/656/EEC, (EU) 2016/425), or equivalent, whe respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, metho or procedures of work organization.

Environmental exposure controls

General advice

: Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

		Product AS SOLD	Product AT USE DILUTION
Physical state	:	liquid	liquid
Colour	:	dark yellow	light yellow
Odour	:	slight	odourless
рН	:	8.5 - 9.5, 100 %	10.3
Particle characteristics			
Assessment	:	not applicable	not applicable
Particle size	:	not applicable	not applicable
Particle Size Distribution	:	not applicable	not applicable
Dustiness	:	not applicable	not applicable
Specific surface area	:	not applicable	not applicable
Surface charge/Zeta potential	:	not applicable	not applicable
Shape	:	not applicable	not applicable
Crystallinity	:	not applicable	not applicable
Surface treatment /Coatings	:	not applicable	not applicable
Flash point	:	Not applicable.	
Odour Threshold	:	Not applicable and/or not determine	ned for the mixture
Melting point/freezing point	:	Not applicable and/or not determine	ned for the mixture
Boiling point, initial boiling point and boiling range	:	100 °C	
Evaporation rate	:	Not applicable and/or not determine	ned for the mixture
Flammability	:	Not applicable and/or not determine	ned for the mixture
Upper explosion limit	:	Not applicable and/or not determine	ned for the mixture
Lower explosion limit	:	Not applicable and/or not determine	ned for the mixture
Vapour pressure	:	Not applicable and/or not determine	ned for the mixture
Relative vapour density	:	Not applicable and/or not determine	ned for the mixture
Density and / or relative density	:	1.19 - 1.23	
Water solubility	:	soluble	
Solubility in other solvents	:	Not applicable and/or not determine	ned for the mixture
Partition coefficient: n- octanol/water (log value)	:	Not applicable and/or not determine	ned for the mixture
Auto-ignition temperature	:	Not applicable and/or not determine	ned for the mixture
Thermal decomposition	:	Not applicable and/or not determi	ned for the mixture
Viscosity, kinematic	:	23.182 mm2/s (40 °C)	
Explosive properties	:	Not applicable and/or not determi	ned for the mixture
Oxidizing properties	:	The substance or mixture is not o	lassified as oxidizing.

9.2 Other information

Not applicable and/or not determined for the mixture

Section: 10. STABILITY AND REACTIVITY

Product AS SOLD 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials: Carbon oxides nitrogen oxides (NOx) Oxides of phosphorus metal oxides

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product AS SOLD Information on likely routes of exposure	: Inhalation, Eye contact, Skin contact	
Product		
Acute oral toxicity	: Acute toxicity estimate : > 2,000 mg/kg	
Acute inhalation toxicity	: There is no data available for this product	
Acute dermal toxicity	: There is no data available for this product	
Skin corrosion/irritation	: There is no data available for this product	
Serious eye damage/eye irritation	: There is no data available for this product	
Respiratory or skin	: There is no data available for this product	

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sensitization					
Carcinogenicity	: There is no data available for this product.				
Reproductive effects	: There is no data available for this product.				
Germ cell mutagenicity	: There is no data available for this product.				
Teratogenicity	: There is no data available for this product.				
STOT - single exposure	: There is no data available for this product.				
STOT - repeated exposure	: There is no data available for this product.				
Aspiration toxicity	: There is no data available for this product.				
Components					
Acute oral toxicity	: Tetrasodium EDTA LD50 rat: 1,700 mg/kg				
	Alcohols, C12-18, ethers with polyethylene glycol mono-Bu ether LD50 rat: > 2,000 mg/kg				
	triethanolamine LD50 rat: 6,400 mg/kg				
Potential Health Effects					
Product AS SOLD Eyes	: Causes serious eye damage.				
Skin	: Causes skin irritation.				
Ingestion	: Health injuries are not known or expected under normal use.				
Inhalation	: Health injuries are not known or expected under normal use.				
Chronic Exposure	: May cause damage to organs through prolonged or repeated exposure.				
Product AT USE DILUTION Eyes	: Health injuries are not known or expected under normal use.				
Skin	: Health injuries are not known or expected under normal use.				
Ingestion	: Health injuries are not known or expected under normal use.				
Inhalation	: Health injuries are not known or expected under normal use.				
Chronic Exposure	: Health injuries are not known or expected under normal use.				
Experience with human exposure					

Product AS SOLD Eye contact	:	Redness, Pain, Corrosion
Skin contact	:	Redness, Irritation
Ingestion	:	No symptoms known or expected.

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Inhalation	No symptor	ms known or expected.
Product AT USE DILUTION Eye contact	No symptor	ms known or expected.
Skin contact	No symptor	ms known or expected.
Ingestion	No symptor	ms known or expected.
Inhalation	No symptor	ns known or expected.
11.2 Information on other hazard		
Further information	no data ava	ailable
Section: 12. ECOLOGICAL INFO	IATION	
12.1 Toxicity		
Product AS SOLD Environmental Effects	This produc	ct has no known ecotoxicological effects.
Product AT USE DILUTION Environmental Effects	This produc	ct has no known ecotoxicological effects.
Product AS SOLD Product		
Toxicity to fish	no data ava	ailable
Toxicity to daphnia and other aquatic invertebrates	no data ava	ailable
Toxicity to algae	no data ava	ailable
Components		
Toxicity to fish	Tetrasodiur 96 h LC50	n EDTA Fish: 121 mg/l
		12-18, ethers with polyethylene glycol mono-Bu ether ciscus idus (Golden orfe): 0.6 mg/l
	triethanolar 96 h LC50:	nine 11,800 mg/l
Components		
Toxicity to daphnia and other aquatic invertebrates	Tetrasodiur 48 h EC50	n EDTA Daphnia magna (Water flea): 140 mg/l
	Alcohols, C LC50: 1.2	12-18, ethers with polyethylene glycol mono-Bu ether mg/l
	triethanolar 48 h EC50:	nine 609.88 mg/l
Components		
Toxicity to algae		12-18, ethers with polyethylene glycol mono-Bu ether Desmodesmus subspicatus (green algae): 0.3 mg/l
	triethanolar	nine
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72 h EC50: > 100 mg/l

12.2 Persistence and degradability

Product	
Biodegradability	: The surfactants contained in the product are biodegradable according to the requirements of the detergent regulation 648/2004/EC
Components	
Biodegradability	: Tetrasodium EDTA Result: Poorly biodegradable
	Alcohols, C12-18, ethers with polyethylene glycol mono-Bu ether Result: Readily biodegradable.
	triethanolamine Result: Readily biodegradable.

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product

Assessment

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

12.7 Other adverse effects

no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste.Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

Product AS SOLD Product

: Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance with local regulations Dispose of wastes in an

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approved waste disposal facility.			
: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.			
: Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations.			
: Diluted product can be flushed to sanitary sewer if regulations permit.			
: Dispose of in accordance with local, state, and federal regulations.			

Section: 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

14.1 UN number or ID	: Not dangerous goods
number 14.2 UN proper shipping	: Not dangerous goods
name	
14.3 Transport hazard class(es)	: Not dangerous goods
14.4 Packing group	: Not dangerous goods
14.5 Environmental hazards	: Not dangerous goods
14.6 Special precautions for	: Not dangerous goods
user	

Air transport (IATA)

14.1 UN number or ID number	: Not dangerous goods
14.2 UN proper shipping	: Not dangerous goods
name	
14.3 Transport hazard class(es)	: Not dangerous goods
14.4 Packing group	: Not dangerous goods
14.5 Environmental hazards	: Not dangerous goods
14.6 Special precautions for	: Not dangerous goods
user	

Sea transport (IMDG/IMO)

14.1 UN number or ID number	: Not dangerous goods
14.2 UN proper shipping	: Not dangerous goods
name	
14.3 Transport hazard class(es)	: Not dangerous goods
14.4 Packing group	: Not dangerous goods
14.5 Environmental hazards	: Not dangerous goods
14.6 Special precautions for	: Not dangerous goods
user	
14.7 Maritime transport in	: Not dangerous goods
bulk according to IMO	
instruments	

Section: 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture according to Detergents 15 % or over but less than 30 %: EDTA and salts thereof

according to Detergents Regulation EC 648/2004	:	15 % or over but less than 30 %: EDTA and salts thereof 5 % or over but less than 15 %: Soap less than 5 %: Phosphonates, Non-ionic surfactants
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major- accident hazards involving dangerous substances.	:	Not applicable.
Candidate List of Substances of Very High Concern for Authorisation	:	Not applicable.
National Regulations		
Take note of Dir 94/33/EC on	the	e protection of young people at work.
Hazard class for water	:	WGK 2 Classification according to AwSV, Annex 1
German storage class	:	12

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out on the product. Section: 16. OTHER INFORMATION

Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

Classification	Justification
Skin irritation 2, H315	Calculation method
Serious eye damage 1, H318	Calculation method
Specific target organ toxicity - repeated	Calculation method
exposure 2, H373	

Full text of H-Statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure
	if inhaled.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response: GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN -United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by

: Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Annex: Exposure Scenarios

Exposure Scenario: Industrial automatic application					
Life Cycle Stage	:	Use at industrial sites			
Sector of use	:	SU9	Manufacture of fine chemicals		
Contributing scenario controlling environmental exposure for:					
Environmental release category	:	ERC4	Industrial use of processing aids in processes and products, not becoming part of articles		
Daily amount per site	:	50 kg			
Type of Sewage Treatment Plant	:	Municipal sewage treatment plant			

Contributing scenario controlling worker exposure for:

Process category	:	PROC8a	Transfer of substance or preparation (charg discharging) from/ to vessels/ large contained dedicated facilities	•
Exposure duration	:	60 min		
Operational conditions and risk management measures	:	Indoor		
		Local Exha	ust Ventilation is not required	
General ventilation		Ventilation	rate per hour	1
Skin Protection	:	see section	8	
Respiratory Protection	:	see section	8	

Contributing scenario controlling worker exposure for:

Process category	:	PROC3	Use in closed batch process (synthesis or for	ormulation)
Exposure duration	:	480 min		
Operational conditions and risk management measures	:	Indoor		
		Local Exhaust Ventilation is not required		
General ventilation		Ventilation	rate per hour	1
Skin Protection	:	see section	8	
Respiratory Protection	:	see section	8	